

REMARKS

In view of the above amendments and remarks to follow, Claims 1 and 3-5 which are in the application overcome or avoid the objection and rejections. More specifically, Claim 1 has been amended to recite the silicon content of the claimed toner. Basis for the amendment is found in the original Claim 2, which is now cancelled in light of the amendment to Claim 1. Also, Claim 1 has been amended to recite the invention more clearly and distinctly by reciting the percent content based on magnetite. The amendments overcome the 35 U.S.C. 112, first and second paragraph rejections of the claims for reciting silicon content of 0.05% and the basis for the percent content.

Discussed more fully hereunder are the outstanding objections and rejections and how Applicant has overcome or avoided the same.

35 USC 112, second paragraph rejection

The rejection is based on the grounds that:

"Claim 5 remains indefinite because the specification as filed does not set forth the manner in which sphericity is determined. In response to this rejection a declaration by applicant was provided explaining how sphericity was determined in the instant invention. However, the application must be complete as filed. It was not. There is no guidance in the specification as to how to determine sphericity. It appears that other methods of determining sphericity are known in the relevant art and that each method would give different results. For example US Patent 6,416,817 uses a different device and formula from that disclosed in the declaration to give a numerical representation of sphericity (col. 2, l. 66 - col. 3, l. 12). It appears from the evidence of record that there are a number of different methods to determine sphericity that would produce values within the scope of those claimed and that the same particles would produce different values depending on the method used. The specification does not provide guidance of the method used to determine sphericity in the instant claims."

Applicant traverses the rejection because the captioned application contains sufficient disclosure particularly at page 10, point 8, to calculate sphericity.

The application thereat states that:

"The sphericity is determined by means of image analysis based on a TEM micrograph at a magnification of 30,000 times. The evaluation is done by the shape factor method using an automatic image analysis system (IBAS, made by Zeiss). In this connection, the ratio of minimum diameter to maximum diameter of

a particle gives the shape factor. The nearer this value is to 1.0, the rounder is the particle."

The foregoing provide sufficient and definite guidance for determining sphericity. As such, given the disclosure of the application as filed, the skilled artisan can readily ascertain the manner in which the sphericity is determined.

#### 35 USC 132 objection

The objection is based on the grounds that:

"The added material which is not supported by the original disclosure is as follows: the content of Mn as being determined by ICP-OES (spec. p. 9). The specification as filed states that the content of Mn is determined by atomic absorption spectroscopy. There is no basis in the specification as filed to indicate that the original disclosure was in error or that the "correction" now presented is the obvious correction when considered by the skilled artisan. Applicants have not provided an explanation for this change in the response.

Applicant is required to cancel the new matter in the reply to this Office Action."

While canceling Applicants' correction to the claims, as requested by the Examiner, would comply with formality, it seems to Applicants that the application and for that matter the patent which issues therefrom would contain an incorrect statement. With all due respect to the Examiner, it seems to Applicant that it would be more appropriate to correct the statement than to leave it uncorrected. For, with the correction, the Mn content remains inherently the same as measured by atomic adsorption spectroscopy or by ICP-OES.

#### 35 USC 103 Rejection

The rejection is based on the grounds that:

"Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 197 02 431 considered with the description of the document on specification page 3. This rejection was set forth in the last Office action based on the limitation of a "low-silicon magnetite." The claims have been amended to require the content of silicon in the magnetite or be less than 0.05 wt.%. The German document discloses formation of toner using low-silicon magnetites (see document col. 4, l. 63-64 & claim 9) where the content of silicon is 0.05 to 2.0 wt. % (Abstract). Based on the disclosure of 0.05 wt. %

silicon in the magnetite, the artisan of ordinary skill would have found it obvious to use slightly less than the disclosed amount of 0.05 wt. % silicone because the artisan would expect equivalent usefulness for silicon content as close as possible to 0.05 wt.%. Such values are included within the scope of the claims. The magnetite has the same characteristics as specified in instant claim 5 noting document col. 2, l. 33-53 and thus suggests these features for the magnetite."

Applicant submits that the above amendments to Claim 1, reciting silicon content of less than 0.025 wt.%, avoid the rejection. Such an amendment would distinguish the claims from examples 2-5 of the prior art where the lowest silicon content is example 5 which lists 0.22 wt.%. The Examiner's reasoning that an artisan of ordinary skill would have found it obvious to use slightly less than the disclosed amount of 0.05 wt. % silicone because the artisan would expect equivalent usefulness for silicon content as close as possible to 0.05 wt.% would no longer apply.

In this regard, Applicants hasten to note that Comparative Example 1 is not temperature stable. Applicants further note that a comparison of the examples in the instant application and in the prior art reveals that the various products being claimed are manufactured by two different processes. Said process can basically be compared as follows:

Instant Application (Example 1)	Prior Art (Example 2)
1. NaOH	1. NaOH + NaSiO <sub>4</sub>
2. N <sub>2</sub> gasification and stirrer	2. N <sub>2</sub> gasification and stirrer
3. Heat to 90 C	3. Heat to 90 C
4. Add Fe <sub>2</sub> SO <sub>4</sub>	4. Add Fe <sub>2</sub> SO <sub>4</sub>
5. N <sub>2</sub> gasification ended	5. N <sub>2</sub> gasification ended
6. Air gasification until Fe(III) content of 66 mol%	6. Air gasification until Fe(III) content of 66 mol%
7. N <sub>2</sub> gasification repeated	7. Filtration
8. Add NaOH	8. Washing
9. Add Fe <sub>2</sub> SO <sub>4</sub>	9. Spray-drying
10. Oxidation	10. Powder obtained is ground
11. Filtration	
12. Washing	
13. Drying	
14. Powder obtained is ground	

As would be realized from the above, the difference in the product obtained does not depend merely on not adding silicon in step one. When the invention is considered as a whole, it is patentably distinct over the prior art.

Double Patenting Rejection

Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 14 and 15 of copending Application No. 09/944,880. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending claims are presented in product-by process form concerning the method of making the magnetite, and this magnetite appears to fall within the scope of the instant claims. The process disclosed in the copending claims appears to be included within the scope of the process disclosed in the instant specification (pp. 4-5) for formation of the magnetite. Thus, the copending application is seen as producing a low-silicon magnetite in the process claims and claiming the product of the process in a toner in Claims 14 and 15. The product of the copending claim is seen as falling within the scope of the instant claims. Applicant's amendments do not overcome this rejection because the content of silicon in the copending application claims remains within the scope of the instant claims. No specific ground of traversal was presented in the recent response."

Applicants traverse the double patenting rejection for failing to state a basis, which would have led to the modification of the claims in the copending application to claims in the instant application. The mere fact that the claims of the instant application fall within the broad scope of the claims of the copending application does not render the former obvious, absent some teaching, suggestion or motivation leading to the modification.

In view of the foregoing amendments and remarks, Applicants submit the claims in the application are patentably distinct. Applicants therefore pray for their allowance.

Respectfully submitted,

By \_\_\_\_\_

  
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